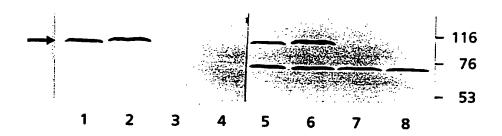
FIGURE 1



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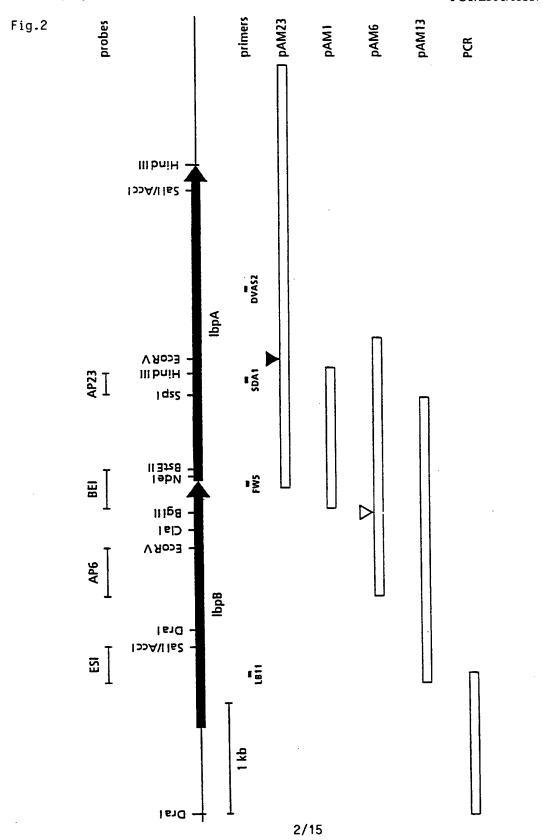


Fig.3

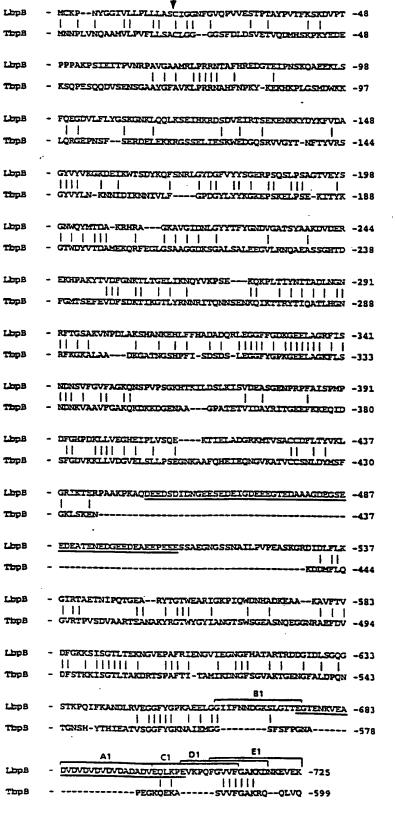
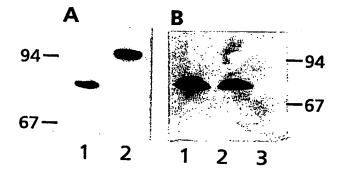
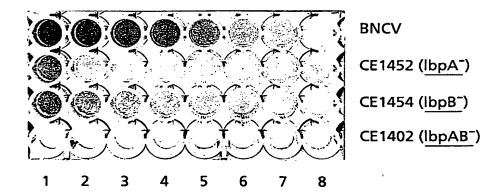


FIGURE 4

 $\tt ATCAAATAGG\underline{AGGAAAAGTAGGGGATGTGTAAACCGAATTATGGCGGC$

	EDDA	•	_	+	-	+	-	+	-	+		
A	anti-LbpA		_								_ ·	116 76
В	anti-LbpB		_		•						- : -	116 76
	Strain		1 wt	2	3 lbp/	4 A ⁻	5 lbpE	6 3 ⁻	7 IbpAl	8 8-	l	





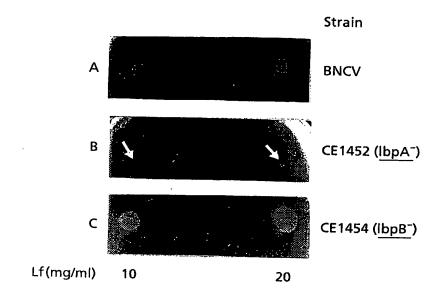


Figure 9

MCKPNYGGIVLIPLILASCIGGNFGVQDVVESTPTAYPVTKSKDUPTEP			
M990 MCKPNYGGIVLIPLLLASCIGGNFGVOPVVESTPTA-PTLSDEKSSNPADKPARA 881607 MCKPNYGGIVLIPLLASCIGGNFGVOPVVESTPTAYPVTKSKDVDTSP 881607 MCKPNYGGIVLIPLLASCIGGNFGVOPVVESTPTAYPVTKSKDVDTSP 50 ENCV PAKPSIEITPVNRPAVGAAMRLFRENTAFHREDGTEIPNSKQAEEKLSFKEGD 103 881607 PAGPSUTTPVSTGPAVGAAMRLFRENTAFHREDGTEIPNSKQAEEKLSFKEGD 104 881607 PAGPSUTTPVNRPAVGAAMRLFRENTAFTDKNGNEINSKQAEEKLSFKEGD 105 881607 PAGSSVETTPVNRPAVGAAMRLFRENTAFTDKNGNEINSKQAEEKLSFKEGD 106 881607 PAGSSVETTPVNRPAVGAAMRLFRENTAFTBENGTAIPDSKQAEEKLSFKEGD 107 881607 PAGSSVETTPVNRPAVGAAMRLFRENTAFTBENGTAIPDSKQAEEKLSFKEGD 108 881607 VLFLYGSKKDKLGWLKDKHGRNENNVEIRTSKNEKKYKYDKFVDAGYVYVK-GKD 881607 VLFLYGSKKDKLGWLKDKHGRNENNVEIRTSKNEKKYKYDKFVDAGYVYVTKNGTD 160 M990 ILFLOGTPKEQADKLKKEINGRNENASITTSENENKKYNYRFVDAGYVYTTKORD 161 881607 ILFLYGSKKDCROCLKKEINGRNENASITTSENENKKYNYRFVDAGYVYTTKORD 162 881607 ILFLYGSKKDCROCLKKEINGRNENASITTSENENKKYNYRFVDAGYVYTTKORD 163 881607 EIKWTSDYKOFSNRLGYDGFVYYSGERPSGSLPSAGTVEYSGNWOYMTDAKRHRA 217 881607 EIKWTSDYKOFSNRLGYDGFVYYSGERPSGSLPSAGTVEYSGNWOYMTDAKRHRA 218 881607 EIEWTSNKKOFSNREGYDGFVYYSGERPSGSLPSAGTVEYSGNWOYMTDAKRHRA 219 881607 EIEWTSNYKOSTNREGYDGFVYYSGERPSGSLPSAGTVEYSGNWOYMTDAKRHRA 210 881607 EIEWTSNYKOSTNREGYDGFVYYSGERPSGSLPSAGTVEYSGNWOYMTDAKRHRA 211 881607 EIEWTSNYKOSTNREGYDGFVYYSGERPSGSLPSAGTVEYSGNWOYMTDAKRHRA 212 881607 EIEWTSNYKOSTNREGYDGFVYYSGERPSGSLPSAGTVEYSGNWOYMTDAKRHRA 213 881607 GKAUG-IDNLGYTTFYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGELIK 266 881607 GKAUG-IDNLGYTTFYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGELIK 270 881607 GKAUG-IDNLGYTTFYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGELIK 271 881607 GKAUG-IDNLGYTTFYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGELIK 272 881607 GKAUG-IDNLGYTTYYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGELIK 273 881607 GKAUG-IDNLGYTTYYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGELIK 274 881607 GKAUG-IDNLGYTTYYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGELIK 275 881607 GKAUG-IDNLGYTTYYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGELIK 276 881607 GKAUG-IDNLGYTTYYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGLIK 376 881607 DA	BNCV	MCKPNYGGIVLLPLLLASCIGGNFGVQPVVESTPTAYPVTFKSKDVPTPP	50
M981 MCKPNYGGIVLIPLILASCIGGNFGVOPVVESTPTAYPVITKSKDVPTSP 50 ***********************************	•	MCKPNYGGIVLLPLLLASCIGGNFGVQPVVESTPTAYPVTFKSKDVPTPP	50
BNCV VLFLYGSKKNLQOLKSEIHKRDSDVEITSEKENKKYDYKFVJAGVYTVAGKD 158 BNCV VLFLYGSKGNKLQOLKSEIHKRDSDVEITSEKENKKYDYKFVDAGVYTVAGKD 158 BNCV VLFLYGSKGNKLQOLKSEIHKRDSDVEITSEKENKKYDYKFVDAGVYTVKNGTD 160 WF990 PAGSSVSTTFVNGPAVGAAMRILFRINIATFIKKNONEIPNSKQAEEKLSFKEGD 105 B81607 PAGSSVSTTFVNGPAVGAAMRILFRINIATFIKKNONEIPNSKQAEEKLSFKEGD 105 BNCV VLFLYGSKGNKLQOLKSEIHKRDSDVEIRTSEKENKKYDYKFVDAGVYVYK-GKD 157 WF44/76 VLFLYGSKKNKLQOLKSEIHKRDSDVEIRTSEKENKKYDYKFVDAGVYYVK-GKD 157 WF990 ILFLOGTFKEQADKLKKSINGRHPNAFITYSDLKDDAVQYKYVRAGVYYTYKNGTD 160 WF991 VLFLYGSKKNKLQOLKSEIHKRDSDVEIRTSEKENKKYDYKFVDAGVYYTKNGTD 162 WF14/76 VLFLYGSKKDKLQWLKDKIHGRNENNVEIRTSEKENKKYDYKFVDAGVYYTKNGTD 162 WF14/76 VLFLYGSKKDQCQLKDKIRGPHPNAFITYSDLKDDAVQYKYVRAGVYYTYKNGTD 162 WF14/76 EIEWTSDYKQFSNRLGYDGFVYYSGERPSGSLPSAGTVEYSGNWQYMTDAKRHRA 212 BNCV EIKWTSDYKQFSNRLGYDGFVYYSGERPSGSLPSAGTVEYSGNWQYMTDAKRHRA 216 WF14/76 EIEWTSNYKQFSNRLGYDGFVYYSGERPSGSLPSAGTVEYSGNWQYMTDAKRHRA 217 WF14/76 EIEWTSNYKQFSNRLGYDGFVYYSGERPSGSLPSAGTVEYSGNWQYMTDAKRHRA 217 WF14/76 EIEWTSNYKQFSNRLGYDGFVYYSGERPSGSLPSAGTVKYSGNWQYMTDAKRHRA 218 WF14/76 EIEWTSNYKQFSNRLGYDGFVYYSGERPSGSLPSAGTVKYSGNWQYMTDAKRHRA 217 WF14/76 EIEWTSNYKQFSNRLGYDGFVYYSGERPSGSLPSAGTVKYSGNWQYMTDAKRHRA 217 WF14/76 EIEWTSNYKQSTNRFGYDGFVYYSGERPSGSLPSAGTVKYSGNWQYMTDAKRHRA 218 WF16/70 EIEWTSNYKQSTNRFGYDGFVYYSGERPSGSLPSAGTVKYSGNWQYMTDAKRHRA 218 WF16/70 GKAUG-IDNLGYYTFYGNDUGATSYAAKDUDEREKHPAKYTVDFORKTLITGLIK 270 WF19/70 GKAUG-IDNLGYYTFYGNDUGATSYAAKDUDEREKHPAKYTVDFORKTLITGLIK 270 WF19/70 GKAUG-IDNLGYYTFYGNDUGATSYAAKDUDEREKHPAKYTVDFORKTLITGLIK 270 WF19/70 GKAUGDPSEDLGYLVYYGONVGATSYAATADDREGKHPAEYTVNFDOKTNITGKLIK 271 WF19/70 GKAUGDPSEDLGYLVYYGONVGATSYAATADDREGKHPAEYTVNFDOKTNITGKLIK 271 WF19/70 NGYV-KPSEKKKPLITYNITATLDGNRFTTGSAKVNFDLAKSHANKEHLFFHADA 312 WF19/70 NGYV-KPSEKKKPLITYNITATLDGNRFTTGSAKVNFDLAKSHANKEHLFFHADA 312 WF19/70 NGYV-KPSEKKKPLITYNITATLDGNRFTTGSAKVNTELKTSHADKHLFFFHDA 322 WF19/70 NGYV-KPSEKKRPLITYNITATLADGNRFTTGSAKVNTELKTSHADKHLFFFHDA 322 WF19/70 NGYV-KRDEPKPLTIVDITAKLDGNRFTTGSAKVNTELKTSHADKHLFFFHDA 322 WF19/70 NGYV-KRDEPKPLTIVDIT		MCKPNYGGIVLLPLLLASCIGGNFGVQPVVESTPTA-PTLSDSKSSNPADKPAPA	54
ENCV PAKPSIEITPVNRPAVGAAMRILPRRNTAFHREDGTEIPNSKQAEEKLSFQEGD 103 1844/76 PAKPSIEITPVRS-PAVGAAMRILRRIFATSDKVGNDFPNSKQAEEKLSFKEGD 105 M991 PAGSSVEITPVNRPAVGAAMRILRRIFATSDKVGNDFPNSKQAEEKLSFKEGD 107 M991 PAGSSVEITPVNGPAVGAAMRILRRNTAFHREDGTAIPDSKQAEEKLSFKEGD 103 881607 PAGSSVETTPVNGPAVGAAMRILRRNTAFHREDGTAIPDSKQAEEKLSFKEGD 103 ************************************	· · · · · -	MCKPNYGGIVLLPLLLASCIGGNFGVQPVVESTPTAYPVTFKSKDVPTSP	50
BNCV PAKPSIEITPVNRPAVGAAMRLPRRNTAFHREDGTEIPNSKQAEEKLSFKEGD 105 H44/76 PAKPSIEITPVPSTGPAVGAAMRLLRRIFATSKVONDFPNSKQAEEKLSFKEGD 105 M990 PAGPSVEITPVKRPAVGAAMRLLRRIFATSKVONDFPNSKQAEEKLSFKEGD 103 881607 PAGSSVETTPVNRPAVGAAMRLLRRITAFHREDGTAIPDSKQAEEKLSFKEGD 103 881607 PAGSSVETTPVNRPAVGAAMRLLRRNIATSKDGNDFPNSKQAEEKLSFKEGD 103 ************************************	881607		50
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PAGGSVETTPVNQPAVGAAMRILIRNTAFHREDGTAIPDSKQAEEKLSFKEGD 103	M990	PAEPSVEITPVKRPAVGAAMRLPRRNIATFDKNGNEIPNSKOAEEYLPLKEKD	
BRICO VLIFLYGSKGNKLQQLKSEIHKRDSDVEIRTSEKENKKYDYKFVDAGYVYVK-GKD 157 H44/76 VLIFLYGSKGNKLQQLKSEIHKRDSDVEIRTSEKENKKYDYKFVDAGYVYVK-GKD 167 H990 ILFLDGTPKEQADKLKKEINGRHPNAPIYTSDLKDDAYQYKYVRAGYVYTRYGTD 162 H981 VLIFLYGSKKDKLQQLKSEIHKRNEASITTSENENKKYGYFYDAGYVYTKNGTD 158 H81607 LIFLYGSKKDCQLKSEIHKRNEASITTSENENKKYMYRFVSAGYVFTKNGKD 158 H1617 LIFLYGSKKDCQQLKSEIHKRNEASITTSENENKKYMYRFVSAGYVFTKNGKD 158 H1617 LIFLYGSKKDCQQLKSEIHKRNEASITTSENENKKYMYRFVSAGYVFTKNGKD 158 H1617 EIKWTSDYKQFSNRIGYDGFVYYSGERFSQSLPSAGTVEYSGNWQYMTDAKRHRA 212 H1617 EIEWTSNRKQFSNRFGYDGFVYYSGERPSQSLPSAGTVEYSGNWQYMTDAKRHRA 215 H1618 EIEWTSNRKQFSNRFGYDGFVYYSGERPSQSLPSAGTVEYSGNWQYMTDAKRHRA 217 H991 EIEWTSNKAGSTNRFGYDGFVYYSGERPSQSLPSAGTVEYSGNWQYMTDAKHRR 213 H81607 EIEWTSNYKQSTNRFGYDGFVYYSGERPSQSLPSAGTVEYSGNWQYMTDAKHRR 213 H81607 EIEWTSNYKQSTNRFGYDGFVYYSGERPSQSLPSAGTVEYSGNWQYMTDAKHRR 213 H81607 GKAVG-IDNLGYYTFYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGGLIK 270 H990 GQAVG-IDNLGYYTFYGNDVGATSYAAKDVDEREKHPAKYTVDFFNKTLTGGLIK 270 H990 GQAVG-IDNLGYYTFYGNDVGATSYAAKDVDEREKHPAKYTVDFFNKTLTGGLIK 266 H44/76 GKAGDPSEDLGYLVYYGQNVGATSYAAKDVDEREKHPAKYTVDFFNKTLTGGLIK 267 H881607 GKAGDPSEDLGYLVYYGGNVGATSYAAKDVDEREKHPAKYTVDFFNKTLTGGLIK 267 H881607 GKAGDPSEDLGYIVYYGGNVGATSYAAKDVDEREKHPAKYTVDFFNKTLTGGLIK 267 H881607 GKAGDPSEDLGYIVYYGGNVGATSYAAKDVDEREKHPAKYTVDFFNKTLTGGLIK 267 H881607 GKAGDPSEDLGYIVYYGNVGATSYAAKDVDEREKHPAKYTVDFFNKTLTGGLIK 267 H881607 GKAGDPSEDLGYIVYTGNNGATSYAAKDVDEREKHPAKYTVDFFNKTLTGGLIK 267 H881607 GKAGDPSEDLGYIVYTGNNGATSYAAKDVDEREKHPAKYTVDFFNKTLTGGLIK 267 H881607 GKAGDPSEDLGYIVYTGNNGATSYAAKDVDEREKHPAKYTVDFFNKTLTGGLIK 267 H8990 GQAVG-IDNLGYITTYDTTALDGNRFTGSAKVNTPLAKNLANLERFFHADA 324 H8990 NQYV-QKTDEKKPLTTYDTTALDGNRFTGSAKVNTPLAKNLANLANERFFHADA 324 H8990 NQYV-QKRDDPKKPLTTYDTTALDGNRFTGSAKVNTPLAKNLANLANERFFHADA 324 H8990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTTETANADTKPALPSGKHT 378 H8990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTTETANADTKPALPSGKHT 378 H8990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTTETANADTKPALPSGKHT 378 H8990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTTETANADTKPALPSGKHT 378 H89	M981	PAGSSVETTPVNOPAVGAAMRLLRRNTAFHREDGTAIPDSKOAFEKLSFKEGD	
BNCV VLFLYGSKGNKLQQLKSEIHKRDSDVEIRTSEKENKKYDYKFVDAGYVYVK-GKD 157 H44/76 VLFLYGSKGNKLQMLGNKHIGNRDNVBIRTSENENKKYGYBFVDAGYVYTKNGTD 160 M990 ILFLIGGTPKEQDAKLKKEINGREHNAPIYTSDLKDDAYQYKYVRAGYVYTKNGKD 158 881607 ILFLYGSKKDQQLKKEINGRPNAPISTSDLKDDAYQYKYVRAGYVYTKNGKD 158 BNCV EIKWTSDYKQFSNRLGYDGFVYYSGERFSQSLPSAGTVEYSGNWQYMTDAKRHRA 212 H44/76 EIEWTSNRKQFSNRLGYDGFVYYSGERFSQSLPSAGTVEYSGNWQYMTDAKRHRA 215 M990 EIEQNSGGKRUTHRLGYDGFVYYSGERFSQSLPSAGTVEYSGNWQYMTDAKRHRA 216 M981 EIEKTSDKKQFSNRLGYDGFVYYSGERFSQSLPSAGTVEYSGNWQYMTDAKRHRA 217 M981 EIEKTSDKKQFSNRLGYDGFVYYSGERFSQSLPSAGTVEYSGNWQYMTDAKRHRA 213 M981 EIEKTSDKKQFSNRLGYDGFVYYSGERFSQSLPSAGTVEYSGNWQYMTDAKRHRA 213 BNCV GKAVG-IDNLGYTFYGNDVGATSYAAKDVDEREKHPAKYTVDFGNKTLTGELIK 266 H44/76 GKAGDPSEDLGYLVYYQQNVGATSYAAKDVDEREKHPAKYTVDFDKKTLTGELIK 270 M990 GQAVG-IDNLGYTTFYGNDVGATSYAAKDVDEREKHPAKYTVDFDKKTLTGELIK 270 M991 GKGVS-SVDLGYTTYYGNEIGAASYEARDADGREKHPAEYTVVDFDKKTLTGELIK 267 881607 GKAGDPSEDLGYLVYYQQNVGATSYAATADDREKKHPAEYTVVDFDKKTLTGGLIK 268 BNCV NQVV-KPSEKKÇFLTIYNTATLDGNRFTGSAKVNFDLAKSHANKEHLFFHADA 319 H44/76 NQVV-QKKTDEKKPLTIYDITATLDGNRFTGSAKVNFDLAKSHANKEHLFFHADA 326 M981 NQVV-QKRDDFKPFLTIYNTATLDGNRFTGSAKVNFDLAKSHANKEHLFFHADA 326 M981 NQVV-QKRDDFKPFLTIYNTATLDGNRFTGSAKVNFDLAKSHANKEHLFFHADA 326 M981 NQVV-QKRDDFKPFLTIYNTATLDGNRFTGSAKVNFDLAKSHANKEHLFFHADA 326 M981 NQVV-QKRDDFKPFLTIYNTATLDGNRFTGSAKVNFUKNTHADKEYLFFHTDA 321 M981 NQVV-QKRDDFKPFLTIYNTATLDGNRFTGSAKVNFUKNTHADKEYLFFHTDA 321 M981 NQVV-QKRDDFKPFLTIYNTATLDGNRFTGSAKVNFUKNTHADKEYLFFHTDA 321 M981 NQVV-QKRDDFKPFLTIYNTATLDGNRFTGSAKVNFUKNTHADKEYLFFHTDA 321 M981 NQVV-QKRDDFKPLTIYNTATLDGNRFTGSAKVNFUKNTHADKEYLFFHTDA 321 M981 NQVV-QKRDDFKPLTIYNTATLDGNRFTGSAKVNFUKNTHADKEYLFFHTDA 321 M981 NQVV-QKRDDFKPLTIYNTATLDGNRFTGSAKVNFUKNTHADKEYLFFHTDA 321 M980 NQLEGGFFGDKGEELAGRFISNDNSVFGVFAGK, KTETANADTNPANPSEKHT 378 M981 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGK, KTETANADTNPALPSGKHT 378 M981 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGK, KTETANADTNPALPSGKHT 378 M980 KILDSLKISVDEATDGNARFFAISPLPDFGHPDKLLVEGREIPLVNGEKTIELAD 433 M990 KILDSLKISVDEATDGNARFFAISPLPDFGHPDKLLVE	881607	PAGSSVETTPVNRPAVGAAMRLLRRNIATSDKDGNDFPNSKOAEEKLSFKEED	
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BNCV NQYVKPSEKQKPLTIYNITADLNGNRFTGSAKVNPDLAKSHANKEHLFFHADA 319 H44/76 NQYV-QKKTDEKKPLTIYDITATLDGNRFTGSAKVNTELKTSHADKEHLFFHTDA 324 M990 NQYVRNKKDEPKKPLTIYDITAKLDGNRFTGSAKVNTELKTSHADKEHLFFHTDA 326 M981 NQYV-QKRDDPKNPLTIYNITATLDGNRFTGSAKVNTEVATOHADKEYLFFHTDA 321 881607 NQYV-QKRDDPKNPLTIYNITATLDGNRFTGSAKVNTEVKTQHADKEYLFFHTDA 322 **** * **** * *********************	881607		
H44/76 M990 MQYV-QKKTDEKKPLTIYDITATLDGNRFTGSAKVNTELKTSHADKEHLFFHTDA 326 M981 MQYV-QKRDDPKNPLTIYNITATLDGNRFTGSAKVNPDLAKNLAGNERLFFHADA 321 881607 MQYV-QKRDDPKNPLTIYNITATLDGNRFTGSAKVNTEVKTQHADKEYLFFHTDA 321 BNCV DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGKQNSPVPSGKHT 364 H44/76 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGK-KTNASNAADTNPAMPSEKHT 378 M990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTETANAADTKPALPSGKHT 380 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTETANASDTNPALPSGKHT 376 BNCV DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT 376 BNCV DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT 377 **********************************		· · · · · · · · · · · · · · · · · · ·	
H44/76 M990 MQYV-QKKTDEKKPLTIYDITATLDGNRFTGSAKVNTELKTSHADKEHLFFHTDA 326 M981 MQYV-QKRDDPKNPLTIYNITATLDGNRFTGSAKVNPDLAKNLAGNERLFFHADA 321 881607 MQYV-QKRDDPKNPLTIYNITATLDGNRFTGSAKVNTEVKTQHADKEYLFFHTDA 321 BNCV DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGKQNSPVPSGKHT 364 H44/76 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGK-KTNASNAADTNPAMPSEKHT 378 M990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTETANAADTKPALPSGKHT 380 M981 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTETANASDTNPALPSGKHT 376 881607 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT 377 ***********************************	BNCV	NOVI - VDSEVOVDI TIVNITADI NONDETOGA MANDRI A VOITA NOVI DELLA	
M990 NQYVRNKKDEPKKPLTIYDITAKLDGNRFTGSAKVNPDLAKNLAGNERLFFHADA 326 M981 NQYV-QKRDDPKNPLTIYNITATLDGNRFTGSAKVSTEVKTQHADKEYLFFHTDA 321 881607 NQYV-QKRDDPKKPLTIYDITAKLDGNRFTGSAKVNTEVKTNHADKEYLFFHTDA 322 ****			
M981 NQYV-QKRDDPKNPLTIYNITATLDGNRFTGSAKVSTEVKTQHADKEYLFFHTDA 321 881607 NQYV-QKRDDPKKPLTIYDITAKLDGNRFTGSAKVNTEVKTNHADKEYLFFHTDA 322 ****	• -		
881607 NQYV-QKRDDPKKPLTIYDITAKLDGNRFTGSAKVNTEVKTNHADKEYLFFHTDA **** * **** * ****** * * * * * * * *			
BNCV DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGKQNSPVPSGKHT 364 H44/76 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGK-KTNASNAADTNPAMPSEKHT 378 M990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTETANAADTKPALPSGKHT 380 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT 376 BNCV DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT 377 ***********************************			
H44/76 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGK-KTNASNAADTNPAMPSEKHT M990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTETANAADTKPALPSGKHT BRICO R10 R10 R10 R11 R11 R11 R12 R12			322
H44/76 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGK-KTNASNAADTNPAMPSEKHT M990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTETANAADTKPALPSGKHT BRICO R10 R10 R10 R11 R11 R11 R12 R12			
H44/76 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGK-KTNASNAADTNPAMPSEKHT M990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTETANAADTKPALPSGKHT BRICO R10 R10 R10 R11 R11 R11 R12 R12	BNCV	DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGKQNSPVPSGKHT	364
M990 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGK-KTETANAADTKPALPSGKHT 380 M981 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT 376 881607 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT 377 ***********************************	H44/76		
M981 DQRLEGGFFGDNGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT 376 881607 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT 377 ***********************************	M990		
881607 DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT ************************************	M981		
BNCV KILDSLKISVDEASGENPRPFAISPMPDFGHPDKLLVEGHEIPLVSQEKTIELAD 419 H44/76 KILDSLKISVDEATDKNARPFAISPLPDFGHPDKLLVEGREIPLVSQEKTIELAD 433 M990 KILDSLKISVDEATDGHARKFAISSMPDFGHPDKLLVEGREIPLVNEEQIIKLAD 435 M981 KILDSLKISVDEATDDHARKFAISTMPDFGHPDKLLVEGREIPLVSQEKTIELAD 431 881607 KILDSLKISVDEASGENPRPFEVSTMPDFGHPDKLLVEGREIPLVNKEQTIDLAD 432	881607	DQRLEGGFFGDKGEELAGRFISNDNSVFGVFAGKQKTETANASDTNPALPSGKHT	
H44/76 KILDSLKISVDEATDKNARPFAISPLPDFGHPDKLLVEGREIPLVSQEKTIELAD 433 M990 KILDSLKISVDEATDGHARKFAISSMPDFGHPDKLLVEGREIPLVNEEQIIKLAD 435 M981 KILDSLKISVDEATDDHARKFAISTMPDFGHPDKLLVEGREIPLVSQEKTIELAD 431 881607 KILDSLKISVDEASGENPRPFEVSTMPDFGHPDKLLVEGREIPLVNKEQTIDLAD 432			
H44/76 KILDSLKISVDEATDKNARPFAISPLPDFGHPDKLLVEGREIPLVSQEKTIELAD 433 M990 KILDSLKISVDEATDGHARKFAISSMPDFGHPDKLLVEGREIPLVNEEQIIKLAD 435 M981 KILDSLKISVDEATDDHARKFAISTMPDFGHPDKLLVEGREIPLVSQEKTIELAD 431 881607 KILDSLKISVDEASGENPRPFEVSTMPDFGHPDKLLVEGREIPLVNKEQTIDLAD 432	BNCV	KII.DSI.KISVDEASGENDEDERAISDMDDEGUDDVIIIMEGUDTAIIMAG	4
M990 KILDSLKISVDEATDGHARKFAISSMPDFGHPDKLLVEGREIPLVNEEQIIKLAD 435 M981 KILDSLKISVDEATDDHARKFAISTMPDFGHPDKLLVEGREIPLVSQEKTIELAD 431 881607 KILDSLKISVDEASGENPRPFEVSTMPDFGHPDKLLVEGREIPLVNKEQTIDLAD 432	H44/76	KILDSLKISVDEATDKNARPFAISPLPDFGHPDKLIVEGBETDIVGGTTELAD	
M981 KILDSLKISVDEATDDHARKFAISTMPDFGHPDKLLVEGREIPLVSQEKTIELAD 431 881607 KILDSLKISVDEASGENPRPFEVSTMPDFGHPDKLLVEGREIPLVNKEQTIDLAD 432	M990	KILDSLKISVDEATDGHARKFAISSMPDFGHPDKILJFEGDFTDIJMFEGTTVING	
881607 KILDSLKISVDEASGENPRPFEVSTMPDFGHPDKLLVEGREIPLVNKEQTIDLAD 432	M981	KILDSLKISVDEATDDHARKFAISTMPDFGHPDKILJEGDETDIJGGEVETER NO	
********* * * * ******* * * * * * * * *	881607	KILDSLKISVDEASGENPRPFEVSTMPDFGHPDKLLVEGRET PLANTED TO AD	
			734

Figure 9: (continued)

BNCV	GRKMTVSACCDFLTYVKLGRIKTERPAAKPKAQDEEDSDIDNGEES-EDEI	469
H44/76	GRKMTVRACCDFLTYVKLGRIKTDRPASKPKAEDKGKDEEDTGVGNDEEGTEDEA	488
M990	GRKMTVRACCDFLTYVKLGRIKTDRPASKPKAEDKGEDEEGAGVDNDEES-EDEA	489
M981	GRKMTIRACCDFLTYVKLGRIKTDRPAVKPKAQDEEDSDIDNGEES-EDEI	481
881607	GRKMTVRACCDFLTYVKLGRIKTERPAVQPKAQDEEGDEEGVGVDNGKES-EDEI	486
887601	**** *********** *** ** * * * * * * *	. 400

D. C.	CDDSCORDS & CDCCCCCDS C PRODUCTS C CONTROL CON	511
BNCV	GDEEGTEDAAAGDEGSEEDEATENEDGEEDEAEEPEEESSA	
H44/76	AEGSEGGEDEIGDEGGGAEDEAAENEGGEEDEAEEPEEPEEESPA	533
M990	VEDEGGEEDETSEEDNGEDEEATAEEETEEVDEAEEEEVEEPEEKSPA	537
M981	SEDDNGEDEVTEEEEAEETEEETDEDEEEEPEETEETEETEETEETEEKSPT	536
881607	GDEESTGDEVVEDEDEDEEEIEEEPEEEAEEEEPEEELPA	528
	* * * * * **	
BNCV	e-gngssnailpvpeaskgrdidlflkgirtaetnipqtgearytgtwearigkp	565
H44/76	EGGGGGSDGILPAPEAPKGRDIDLFLKGIRTAEADIPQTGKARYTGTWEARISKP	588
M990	E-GNGGSGSILPALEASKGRDIDLFLKGIRTAETDIPQSGTAHYTGTWEARIGKP	591
M981	EEGNGGSGSILPTPEASKGRDIDLFLKGIRTAEADIPOIGKARYTGTWEARIGVP	591
881607	EEGNGGSGSILPTPEASKGRDIDLFLKGIRTAEADIPKNGTAHYTGTWEARIGVS	583
002007	* * * * *** ** ******	
BNCV	iowdnhadkeaakavftvdfgkksisgtltekngvepafrien	608
H44/76	IOWDNHADKKAAKAEFDVDFGEKSISGTLTEKNGVQPAFHIEN	631
M990	IOWDNOADEKAAKAEFTVDFDKKSISGKLTEONGVEPAFHIED	634
M981	DKKGEQLDGTTSIQKDSYA-NQAAKAEFDVDFGAKSLSGKLTEKNDTHPAFYIEK	645
M981 881607	DSGTSIQKDSYA-NQGAKAEFTVDFEAKTVSGMLTEKNDTTPAFYIEK	630
	** * * *** * *** * ** ** ** * *** * *** **	030
BNCV	GVIEGNGFHATARTRDDGIDLSGOGSTKPQIFKANDLRVEGGFYGPKAEELGGII	663
H44/76	GVIEGNGFHATARTRDNGINLSGNDSTNPPSFKANNLLVTGGFYGPQAEELGGTI	686
M990	GKIDGNGFHATARTRESGINLSGNGSTDPKTFQASNLRVEGGFYGPQAAELGGTI	689
M981	GVIDGNGFHALARTRENGVDLSGQGSTNPQSFKASNLLVEGGFYGPQAAELGGNI	700
	GVIDGNGFHALAHTRENGIDLSGOGSTNPKNFKADNLLVTGGFYGPQAAELGGNI	685
881607	• · · · · · · · · · · · · · · · · · · ·	003
	* * ***** * ** * *** * * * * * * * * * *	
BNCV	FNNDGKSLGITEGTENKVEADVDVDVDVDVDADADVE-QLKP-EVKPQFGVVFGA	716
	FNNDGKSLGITEDTENEAEAEVENEAGVGE-QLKP-EAKPQFGVVFGA	732
H44/76		744
M990	FNNDGKSLSITENIENEAEAEVEVEAEAEVEVEADVGKQLEPDEVKHKFGVVFGA	
M981	IDSDRKIGVVFGA	713
881607	IDSDRKFGAVFGA	698
	* * ***	
DMCU	WINDEREY 72E	
BNCV	KKDNKEVEK 725	
H44/76	KKDNKEVEK 741	
M990	KKDMQEVEK 753	
M981	KKDMQEVEK 722	
881607	KKDDKEATR 707	
	*** *	

Fig. 10

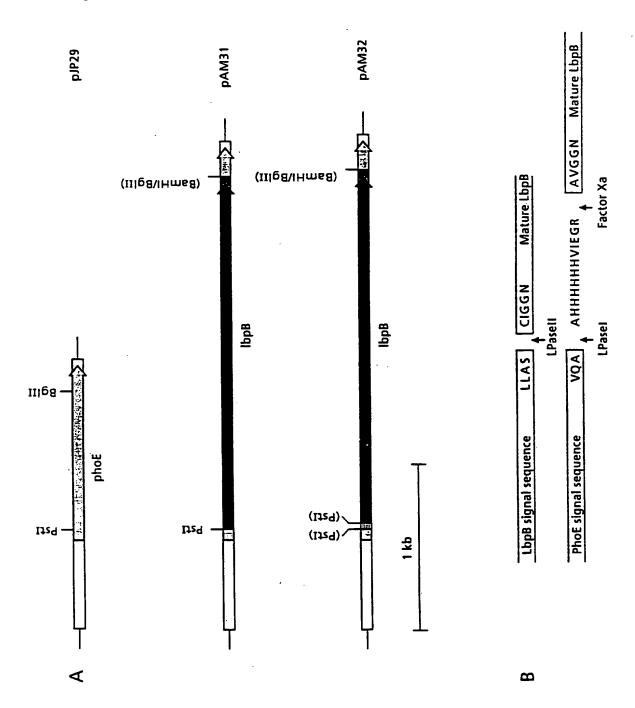
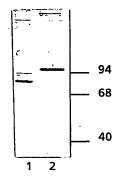


FIGURE 11



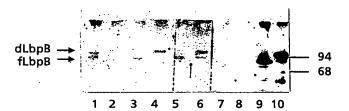
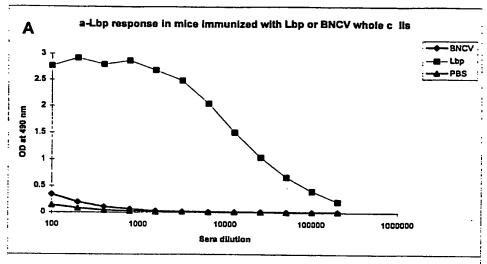
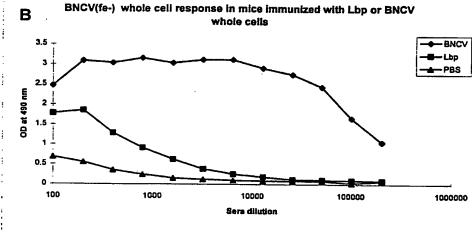


Fig. 13





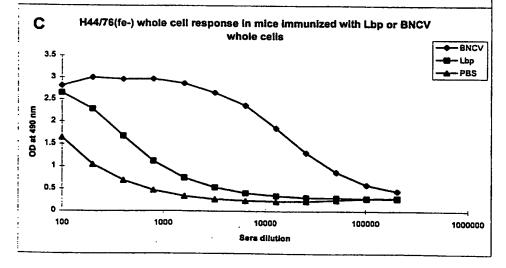


FIGURE 14

